



IN THE CLAIMS

Please amend the claims as follows:

1 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management unit starts is configured to start the management of the first session processing steps when a management start request is received from the client or when a request other than the management start request is received.

2 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs

exclusive access control,

wherein the first session management unit starts is configured to start the management of the first session processing steps when a management start request and a request other than the management start request are received from the client.

3 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management unit ends is configured to end the management of the first session processing steps when a management end request is received from the client or when a predetermined time-out period expires.

4 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is

maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management unit ends is configured to end the management of the first session processing steps when a management end request is received from the client and a predetermined time-out period expires.

5 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management unit starts is configured to start the management of the second transaction processing steps when a management start request is received from the client or when a request other than the management start request is received..

6 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in

which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management unit starts is configured to start the management of the second transaction processing steps when a management start request and a request other than the management start request are received from the client.

7 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management unit ends is configured to end the management of the second transaction processing steps when a management end request is received from the client or when a predetermined time-out period expires.

8 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management unit ends is configured to end the management of the second transaction processing steps when a management end request is received from the client and a predetermined time-out period expires.

9 (Currently Amended). An information-processing apparatus according to claim 5, wherein the second transaction management unit transmits is configured to transmit, before starting the management of the second transaction processing steps has begun, a lock request to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

10 (Currently Amended). An information-processing apparatus according to claim 7, wherein the second transaction management unit transmits is configured to transmit, after ending the management of the second transaction processing steps has ended, an unlock request to the module so that inhibition of using the function by other clients than said client is canceled.

11 (Currently Amended). An information-processing apparatus according to claim 5,
wherein the second transaction management unit receives is configured to receive a lock type
and a management start request from the client, the lock type indicating a classification of a
lock request being sent to the module, and the second transaction management unit transmits
is configured to transmit the lock request, indicated by the received lock type, to the module
so that other clients than said client are inhibited from using the function that needs exclusive
access control.

12 (Currently Amended). An information-processing apparatus according to claim 5,
wherein the second transaction management unit receives is configured to receive a lock type
and a lock type change request from the client, the lock type indicating a classification of a
lock request being sent to the module, and the second transaction management unit transmits
is configured to transmit the lock request, indicated by the received lock type, to the module
so that other clients than said client are inhibited from using the function that needs exclusive
access control.

13 (Currently Amended). An information-processing apparatus according to claim 6,
wherein the second transaction management unit determines is configured to determine a
classification of a lock request being sent to the module, in accordance with a kind of a
function request received from the client, and the second transaction management unit
transmits is configured to transmit the lock request, indicated by the determined
classification, to the module so that other clients than said client are inhibited from using the
function that needs exclusive access control.

14 (Currently Amended). An information-processing apparatus according to claim 6,
wherein the ~~second~~ transaction management unit transmits, before ~~starting~~ the management
of the ~~second~~ transaction processing steps is started, a lock request to the module so that other
clients than said client are inhibited from using the function that needs exclusive access
control.

15 (Currently Amended). An information-processing apparatus according to claim 8,
wherein the ~~second~~ transaction management unit transmits is configured to transmit, after
~~ending~~ the management of the ~~second~~ transaction processing steps has ended, an unlock
request to the module so that inhibition of using the function by other clients than said client
is canceled.

16 (Currently Amended). An information-processing method for an information-
processing apparatus which provides one or more clients with a function that needs exclusive
access control in which user information stored in the information-processing apparatus is
exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps
and incidental information in a state where a session with a client is maintained; and
a ~~second~~ transaction management step of managing a series of indivisible ~~second~~
transaction processing steps performed by using the function that needs exclusive access
control,

wherein the first session management step starts the management of the first session
processing steps when a management start request is received from the client or when a
request other than the management start request is received.

17 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management step starts the management of the first session processing steps when a management start request and a request other than the management start request are received from the client.

18 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management step ends the management of the first session processing steps when a management end request is received from the client or when a predetermined time-out period expires.

19 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and
a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management step ends the management of the first session processing steps when a management end request is received from the client and a predetermined time-out period expires.

20 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and
a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management step starts the management of the second transaction processing steps when a management start request is received from the client or

when a request other than the management start request is received.

21 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and
a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management step starts the management of the second transaction processing steps when a management start request and a request other than the management start request are received from the client.

22 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and
a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management step ends the management of the second

transaction processing steps when a management end request is received from the client or when a predetermined time-out period expires.

23 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a first session management step of managing a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management step of managing a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the second transaction management step ends the management of the second transaction processing steps when a management end request is received from the client and a predetermined time-out period expires.